

## **REMARKS**

### **Information Disclosure Statement**

Regarding the Information Disclosure Statement, a specific authorization authorizing the Office to charge Deposit Account No. 01-2340 was stated in the cover letter dated August 23, 2002. Therefore, the IDS should have been considered by the Office.

A teleconference regarding what is stated above has been made with Examiner Chu on November 25, 2003.

Consideration of the IDS as of the filing date of August 23, 2002 is respectfully requested.

### **Claim Rejections - 35 U.S.C. §112**

**Claims 1-12 are rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Relevant claim is amended, as needed, to overcome this rejection. Reconsideration and withdrawal of this rejection are respectfully requested.

### **Claim Rejections - 35 U.S.C. §102**

**Claims 1, 2 and 4 are rejected under 35 USC §102(b) as being anticipated by McCann (U.S. Patent No. 5,454,002).**

In the outstanding Office action, the Office has specifically stated that McCann discloses a first-conduction-type semiconductor of the semiconductor light emitting element and a second-conduction-type semiconductor of the semiconductor light emitting element. However, the Office fails to indicate where these information are disclosed in McCann and the Applicant cannot successfully identify the Office asserted features in McCann.

In contradistinction, a first-conduction-type semiconductor of the semiconductor light emitting element and a second-conduction-type semiconductor of the semiconductor light emitting element are amply disclosed for example on page 10 lines 17-28 of the written specification. As these features are not disclosed in the Office asserted prior art, independent claim 1 is patentably distinguished over McCann. All claims dependent thereon, by virtue of inherency, are also patentably distinguished over McCann.

It is well settled that:

"A claim is anticipated only if each and every element *as set forth in the claim* is found, either expressly or inherently described, in a single prior art reference." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1567, 7 USPQ2d 1057 (Fed. Cir. 1988)."

Therefore, the claimed invention is not anticipated by McCann. In the interest of advancing the prosecution of this application, independent claim, has been further amended to recite:

"the first heat sink and the second heat sink are either in thermally preferable joining direct contact ~~with each other~~ or in thermally joining contact with interposition of an adhesive in a junction overlooking one of the two side planes

which do not compose the facts of the cavity in the semiconductor light emitting element.”

The amended portion of independent claim 1 is supported in the first paragraph on page 11 of the present specification, which states that

“The words “contact” or “joining” used in this specification covers any condition such that the semiconductor light emitting element and heat sinks are brought into direct contact without being interposed with any other components, such that the semiconductor light emitting element and heat sinks are joined while being interposed with an adhesive so as to attain a thermally preferable joining, and such that the semiconductor light emitting element and heat sinks are functionally contacted with each other, although direct contact is not achieved, which is typified by the case where adhesive layer is relatively thick.” (emphasis added).

In the office action, it is alleged that Fig. 14 of McCann ‘002 meets the conditions of Claim 1. Please note that Fig. 14 does not satisfy the condition of the last paragraph of the amended Claim 1. It is apparent from Fig. 14 that the first heat sink (first metal cold finger 110) and the second heat sink (second metal cold finger 126) are not in direct contact with each other. It is also apparent that the first heat sink 110, the second heat sink 126 and other materials are not in contact with interposition of an adhesive. First metal electrode 108 and second metal electrode 124 are sandwiched between the first heat sink 110 and the second heat sink 126. This embodiment is clearly excluded from the amended Claim 1. Thus, the claimed invention is patentably distinguished over McCann ‘002.

Should the Office continue to believe that the claimed invention, as newly amended, is still anticipated by the asserted prior art, a citation of where each and every claimed feature, either as column number and line number, or figure number and reference numeral, or a combination

thereof, as disclosed in the asserted prior art is respectfully requested. Should the Office determine that any claimed feature is not disclosed in the asserted prior art, it is respectfully submitted that the claimed invention is not anticipated by the asserted prior art. Allowance of the claimed invention is then respectfully requested.

**Claim Rejections - 35 U.S.C. §103**

**Claim 3 is rejected under 35 USC §103(a) as being unpatentable over McCann in view of Ishikura (JP 59-208788).**

**Claims 5 and 10-12 are rejected under 35 USC §103(a) as being unpatentable over McCann in view of Hattori (U.S. Patent No. 5,544,269).**

**Claims 7 and 8 are rejected under 35 USC §103(a) as being unpatentable over McCann in view of Hoffman et al. (U.S. Patent No. 5,578,869).**

**Claim 9 is rejected under 35 USC §103(a) as being unpatentable over McCann in view of Oota (U.S. Patent No. 6,299,056).**

The Applicant agrees with the Office assessed shortcomings of the primary reference McCann. In addition to these shortcomings, it should be noted that McCann also fails to disclose “a first-conduction-type semiconductor of the semiconductor light emitting element and a second-conduction-type semiconductor of the semiconductor light emitting element.” Therefore, even if the secondary references are added thereto, in foresight, the claimed invention is not rendered obvious by the asserted prior art references.

Reconsideration and withdrawal of this rejection are respectfully requested.

**Allowable Subject Matter**

The indication of allowable subject matter in claim 6 is noted with appreciation. In view of the newly amended claim 1, it is believed the claimed invention is further patentably distinguished over the asserted prior art. Therefore, claim 6 is not incorporated into claim 1.

**New Claims**

New claims 13-16 are added herein by amendment.

Support for Claim 13 can be found in , for example, the second paragraph on page 25, which states that “Now as shown in Fig. 1, by making contact between the first and second heat sinks 11, 12 within a space overlooking one of the two side planes which do not compose facets of the cavity in the semiconductor light emitting element 14, it is always ensured that the solder foil, semiconductor light emitting element 14, first heat sink 11 and second heat sink 12 are brought into contact with each other before pressure is applied for example from the top of the first heat sink 11 and the solder material 15 is heated to melt.” (emphasis added). Support for claim 14 can be found in page 28, lines 11-12, which states that “Preferable examples of the solder material include those containing AuGe, AuSn, AgSn, PbSn, InSn, SnBi or In.”

Support for new claims 15-16 are found in the first paragraph on page 11 of the written specification.

### CONCLUSION

In view of the aforementioned amendments and accompanying remarks, all pending claims are believed to be in condition for allowance, which action, at an early date, is requested.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 50-2866.

Respectfully Submitted,

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A handwritten signature in black ink, appearing to read "Michael Lau", with a stylized, flowing script.

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